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The Consumer AND THE **STANDARDIZATION OF FARM PRODUCTS**



AGRICULTURAL MARKETING SERVICE
U. S. DEPARTMENT OF AGRICULTURE

WASHINGTON, D. C.

JULY 1940

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The illustrations used in this pamphlet are selected from panel displays (16 by 20 inches) in color, which are lent for short periods to responsible organizations. In addition to those here shown a full display contains panels relating to the grade labeling of Good and Commercial beef, and of veal. The displays are lent as a whole or in part.

Black-and-white posters (10½ by 16 inches) are available free, for educational purposes.

THE CONSUMER AND THE STANDARDIZATION OF FARM PRODUCTS¹

More and more homemakers are asking the Agricultural Marketing Service how to use the Federal standards of quality for food products. And managers of public dining rooms, purchasing agents for institutions, and others who buy in large quantities are becoming more interested in using these standards as a guide to buying. This is in line with the increasing insistence on the part of consumers to get what they pay for and to know what they are buying.

Although the official United States standards for farm products were worked out primarily for producers and distributors, consumers have not been overlooked by the Department of Agriculture. In accordance with the principle that any well-rounded farm program must take the consumer into account, the number of products for which standards are being carried to consumers is steadily increasing.

Much of the interest in standards traces to the fact that many consumers have decided preferences with regard to food. Those whose incomes permit, are usually willing to pay premium prices for commodities of high quality. Those whose incomes necessitate economy in buying, want to get the highest grade obtainable for the price paid. Because the quality of certain foods - such as eggs, packaged butter, and canned and frozen fruits and vegetables - cannot be judged by their appearance in the store, it is difficult, if not impossible, for the consumer to identify either the highest grade or the highest grade obtainable for the price paid.

For this reason buyers want the name of the grade, which has been applied by a disinterested grader, to be their guide to quality. This is a simple matter if the mark, or tag, or certificate, stays on or with a product until it reaches the consumer. Such a device tells her the grade without any effort on her part. To be sure, workers who have looked into the matter say that many customers do not read the labels; but an increasing number of those who believe in getting their money's worth are heeding the labels. The labels or devices need not supersede judgment. They can act as teachers, for by studying the characteristics they represent, the consumer ought to be better prepared to use her own judgment on similar unlabeled products.

¹ "The Consumer and the Standardization of Farm Products" was first written by Caroline B. Sherman of the Bureau of Agricultural Economics. Since July 1939, the work on the standardization of farm products has been handled by the Agricultural Marketing Service. This revised and enlarged pamphlet was prepared by Catherine M. Viehmann of that Service.

In answering queries, the Agricultural Marketing Service divides the list of standards of direct interest to consumers into two fairly well-defined groups. The first group includes those that can be readily used by the individual homemaker under certain conditions, because of the device, or stamp, or certificate, or other visual indication of grade. The second group includes those that are so marked on some wholesale markets and can be used by consumers who buy in quantity on those markets.

In the first group are beef, lamb, veal, poultry, eggs, butter, cheese, rice, honey, and certain fresh, canned, and frozen fruits and vegetables. Canned chicken and other canned chicken products might be roughly included, since those put up by a large number of firms now bear labels denoting wholesomeness if not quality grade. The second group includes most of the fresh fruits and vegetables, and dry beans. Containers for fruits and vegetables may be said to be in a class by themselves. In the short discussions that follow, the factors that determine grade of quality in the case of several commodities are given.

MEATS

Most consumers are not good judges of meat. Knowing this, meat specialists of the Department, in earlier years, directed much effort to teaching homemakers, and others how to choose meats of suitable quality. Lectures, demonstrations, exhibits, pamphlets, and posters were used. The apparent need of consumers for identification of meat according to quality, their interest in the matter, as well as other considerations, stimulated these specialists to develop a method by which persons who are not expert judges of meat may choose their cuts with confidence.

Government experts - men who know meat - devised a roller stamp with which they mark each carcass so that the grade name appears on those parts that later become retail cuts. (Fig. 1.) The stamping fluid is a pure vegetable compound and therefore is entirely harmless. The imprint usually disappears when the meat is cooked.

The grade stamp is different from the round purple stamp used in Federal meat inspection work. The round stamp shows that the meat has been inspected and passed as wholesome food as required by The Meat Inspection Act which is administered by the Bureau of Animal Industry. The grading work of the Agricultural Marketing Service takes place later. It is an optional service to aid in the merchandising of meats under exact and true grade names, thus enabling the homemaker who wants a Choice grade steak, or a Good grade roast, to be sure of obtaining what she wants.

The meat-grading and stamping service is available through offices of the Agricultural Marketing Service located at Baltimore, Boston, Chicago, Cincinnati, Cleveland, Columbus, Des Moines, Detroit, Indianapolis, Kansas City, Los Angeles, Memphis, St. Louis, Mo., and East St. Louis, Ill., New York, Omaha, Oklahoma City, Philadelphia, Phoenix, San Francisco, Seattle, St. Joseph, St. Paul, Waterloo, and Washington, D. C.

AMS.

BEEF GRADING and STAMPING for CONSUMERS



Based on
Standards
prepared by
**U. S. Department
of Agriculture**

The grade names stamped on beef
by a U. S. Government grader:

U. S. Prime

U. S. Good

U. S. Choice

U. S. Commercial

U. S. Utility

The characteristics of the Choice grade are:

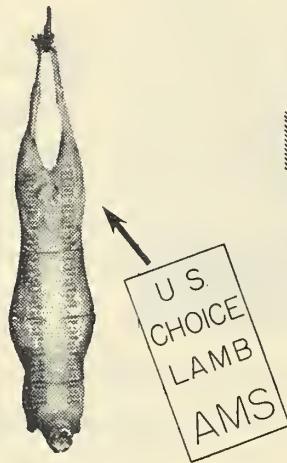
Choice is the highest grade of beef regularly sold at retail. It is best adapted for those who demand high quality beef. The fat covering is moderately thick and is either white or creamy white. The cut surface of the lean shows extensive marbling (intermingling of fat through the lean); is smooth and velvety; and may range from a pale red to a deep red.

**U. S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
WASHINGTON, D. C.**

FIGURE I

AMS.

LAMB GRADING *and* STAMPING *for* CONSUMERS



Based on
Standards
prepared by
U. S. Department
of Agriculture

The grade names stamped on lamb
by a U. S. Government grader:

U. S. Prime

U. S. Good

U. S. Choice

U. S. Medium

U. S. Common

U. S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
WASHINGTON, D. C.

Anyone who requests the service - slaughterer, packer, wholesaler, jobber, hotel or restaurant buyer, or retailer - can obtain it for a nominal charge. U. S. graded and stamped meat is available in any part of the United States in which the retailers order from slaughterers or dealers who make use of this service. Official graders in the cities listed will grade and stamp beef, veal, lamb, and mutton on request of either buyers or sellers.

The meat-grading and stamping service is already appreciated by many individual homemakers, for they feel that the Government stamp is not only an indication of quality but a safeguard against the sale of inferior meat at high prices. Now that meat so identified is available, most dealers will provide it for their customers if the customers ask for it. So it is evident that the availability of federally graded and stamped meats in local groceries, independent retail markets, and chain stores depends largely upon the homemakers. Real demand is almost certain to bring a supply.

A total of more than 635,000,000 pounds of meats of various kinds was labeled and stamped by Government graders during the 1939 calendar year.

Beef

The U. S. official grades of beef are Prime, Choice, Good, Commercial, Utility, Cutter, and Canner. The Cutter and Canner grades are seldom sold in retail meat shops. So consumers need remember only the first five grades and their relative position in the grading scale.

Beef is graded on the basis of those characteristics that determine its relative value and that provide the best indication of its relative desirability to the consumer. The degree of marbling (intermingling of fat through the lean), the texture, grain, and color apparent in the cut surface of the lean are considered the best indicators of quality. Experience and study show that the quantity, character, and distribution of fat are also significant measures of quality. Consumers want to know how much edible meat, particularly lean meat, can be had from a given cut. In other words, what is the proportion of lean meat to bone. This is dependent largely upon the shape or build of the carcass side or cut. The characteristics of the lean, the quantity, distribution, and characteristics of the fat, and the proportion of edible meat to bone, therefore, are the principal factors that determine the grade of beef.

Prime is the highest grade of beef obtainable. The quantity available is very limited. Loins and ribs of this grade are in demand for exclusive hotel, restaurant, and club trade. Most consumers consider the retail cuts of Prime grade beef uneconomical because of the abundance of fat. The fat is firm, brittle, and of a white or creamy-white color. The cut surface of the lean is firm and velvety in appearance. The marbling is extensive and uniform. The color of the lean is usually bright red.

Choice is the highest grade of beef regularly sold at retail. It is most widely used by consumers who demand high-quality beef. The fat covering is moderately thick and white or creamy white in color. The cut surface of the lean is smooth and velvety in appearance. The marbling is rather extensive and can be readily noted in the cut. The lean meat is bright in appearance and may range in color from pale red to deep red.

Good is the highest grade of beef sold in volume throughout the year in practically all of the main beef-consuming centers. It is well adapted for most consumer uses, and is in demand by those who want quality beef at a moderate price. The fat covering is usually slightly thin and creamy white, but it may show a yellowish tinge. The cut surface of the lean is moderately smooth and velvety in appearance and shows some marbling. The color of the lean meat may range from light red to slightly dark red.

Commercial grade represents a relatively large percentage of all the beef produced. It is preferred by those who want beef that has very little if any excess fat, and is in demand by housekeepers who want to buy leaner and lower-priced meat. This grade may not be as satisfactory for broiling or oven roasting as the higher grades but it is wholly satisfactory for cooking in moist heat such as pot roasting and stewing. The fat covering is usually thin and may be slightly yellow and soft. The cut surface of the lean may be somewhat soft and watery or slightly coarse. It may show practically no marbling. The color of the lean meat may vary from light red to dark red.

Utility grade beef is the lowest grade usually sold as "block" beef. It is used by families who find it necessary to buy relatively low-priced meat. It is not as satisfactory for broiling and oven roasting as the higher grades, but it is satisfactory for pot roasting, stewing, and the preparation of other economical meat dishes. The fat covering is usually very thin and varies in color from grayish white to decidedly yellow. The cut surface of the lean is usually soft and watery and rarely shows any marbling. The lean meat ranges in color from light red to very dark red.

During the calendar year 1939 more than 512,000,000 pounds of beef were federally graded and stamped for sale on the markets and for general commercial distribution as well as for Government, State, county, and city institutions. The meat-grading service is used extensively by retailers, buyers for hotels, restaurants, hospitals, steamship lines, and Pullman dining cars. In Seattle, a city ordinance provides that all beef, lamb, and mutton sold within the city must be graded and identified according to the official standards of the U. S. Department of Agriculture under the supervision of an official grader of the Agricultural Marketing Service.

Lamb and Veal

The Federal lamb-grading and stamping service, begun in 1930, is available at all cities in which the beef-grading service is conducted. Five grades of lamb are stamped: U. S. Prime, U. S. Choice, U. S. Good,

U. S. Medium, and U. S. Common. During the calendar year 1939, over 24,000,000 pounds of lamb were graded and stamped. (Fig. 2.)

The Federal veal-grading and stamping service is conducted in the same cities. Five grades are stamped: U. S. Prime, U. S. Choice, U. S. Good, U. S. Medium, and U. S. Common. More than 5,600,000 pounds were graded and stamped during the calendar year 1939.

Pork

Standards for hog carcasses and cuts of pork have been developed. But there is no Federal grading and stamping service for pork, as there is little demand for it because the bulk of hogs slaughtered are well-finished and quality of the product varies but little. About three-fourths of all pork produced would grade No. 1. To grade cured pork products would present a problem in itself because of the different methods of curing and because the quality of cured pork is based to some extent on the way it is cured.

POULTRY (DRESSED)

Turkeys have been graded for the Thanksgiving and Christmas markets since 1928. At first, they were marked by grade for the consumers, either by stamping each bird or by labeling it with a grade tag. The grading service has been given both at shipping points and at terminal markets. During the first few years grading was done principally at terminal markets but more recently it has been done largely at shipping points in cooperation with State agencies. Usually, only the U. S. Prime turkeys are marked individually with a grade tag but any turkey may be marked with its proper U. S. grade. The boxes in which graded turkeys are packed are stamped with the U. S. grade of the turkeys each contains regardless of whether the individual turkeys are tagged for grade. Approximately 25,000,000 pounds are graded annually. (Fig. 3.)

Recently the sale of full-drawn, ready-to-cook poultry, both turkeys and other classes, has increased considerably. Some of this poultry is being inspected for condition and wholesomeness, and some is also being graded for quality. The individual carcasses are wrapped in cellophane wrappers on which are printed the U. S. grade name.

The Agricultural Marketing Service has experimented to find the best way to mark individual poultry carcasses with the grade. At first, the grade was stamped on the back of each bird and a tag giving the grade and other information was attached to one wing. At present, the grade name is printed on a label or tag which is attached to the individual bird by means of a seal that passes through the skin of the breast or wing. The seal is so devised that it breaks when it is removed and, therefore, cannot be used again on another bird. The printing of the U. S. grade name on cellophane sheets for use in wrapping full-drawn carcasses is another method of marking individual poultry carcasses with the U. S. grade.

CANNED POULTRY AND POULTRY PRODUCTS

A service that the Agricultural Marketing Service conducts for canners of poultry and poultry products (such as chicken soup, chicken broth, boneless chicken, and turkey) and for the packers of full-drawn, ready-to-cook poultry has to do with the condition and wholesomeness of the poultry used rather than its commercial grade or quality. The label used on canned poultry products that are prepared under supervision of the Service, or the wrapper used to wrap full-drawn carcasses has an inspection legend printed on it which shows that the chicken used in the product has been federally inspected and certified. Qualified veterinary inspectors examine all carcasses thoroughly and reject all that are unwholesome. This service was inaugurated at the request of the canners. Approximately 30 firms located in Kentucky, Massachusetts, New York, Pennsylvania, New Jersey, Delaware, Indiana, Illinois, Iowa, Minnesota, Missouri, Nebraska, Texas, and Washington now use it. About 5,000,000 pounds of poultry are inspected monthly. These labeled goods are widely distributed, so that housekeepers in any of the larger cities and in many of the smaller towns should be able to obtain these Government-inspected products.

EGGS

Carrying the U. S. grades of eggs through to the consumer is done by means of certificates of quality and by seals. These show the U. S. grade and the size of the eggs. The seals are also used to seal the 1-dozen cartons in which the eggs are packed. Some 94 dealers have been authorized to use these certificates of quality and seals, and approximately 9,000,000 dozens of eggs are so marketed annually. The actual grading is done either by employees of the Agricultural Marketing Service or by employees of the cooperating State agency who have been licensed by the Agricultural Marketing Service.

The work is carried on in widely scattered areas, including Los Angeles, San Francisco, Portland, Oreg., Seattle, New York, Philadelphia, Cleveland, Columbus, Cincinnati, Detroit, Chicago, Baltimore, Boston, St. Louis, Asheville, N. C., and Washington, D. C. The consumers are apparently favorably inclined to the purchase of eggs plainly marked with the U. S. grades. The Service's experience in the use of the certificates of quality and seals indicates that the method has definite advantages in promoting the sale of eggs of good quality, as well as in protecting the consumer. (Fig. 4.)

Three grades of eggs are identified by label for consumers. These are U. S. Specials or Retail Grade AA; U. S. Extras or Retail Grade A; and U. S. Standards or Retail Grade B.

U. S. Special or Retail Grade AA is not found on eastern markets. When available they are especially suitable for the diet of convalescents or for other discriminating consumers.

 — **POULTRY GRADES** —
IDENTIFIED BY LABEL
FOR CONSUMERS

**U.S.
GRADES**

U.S. Special
 U.S. Prime
 U.S. Choice
 U.S. Commercial



**POULTRY
CLASSES**

Broilers
 Fryers
 Roasters
 Fowl
 Roosters, old

THE LABEL SHOWS
 THE GRADE AND CLASS
 OF THE POULTRY

QUALITY FACTORS

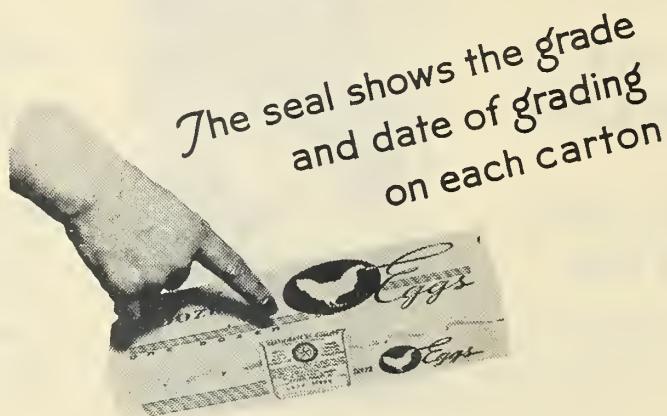
1. AMOUNT OF FLESH	4. CONFORMATION
2. AMOUNT OF FAT	5. DRESSING
3. TENDERNESS	6. BLEEDING

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FIGURE 3

AMS

EGG GRADES IDENTIFIED BY LABEL FOR CONSUMERS



EGG GRADES BASED ON U.S. STANDARDS OF QUALITY SHOWN ON LABELS AS FOLLOWS:

Retail Grade AA (U. S. Specials)

Retail Grade A (U. S. Extras)

Retail Grade B (U. S. Standards)

QUALITY FACTORS

1. CONDITION OF WHITE	4. SIZE OR WEIGHT
2. CONDITION OF YOLK	5. CLEANLINESS OF SHELL
3. DEPTH OF AIR CELL	6. SOUNDNESS OF SHELL

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FIGURE 4

U. S. Extra or Retail Grade A is the highest grade available at most markets. Eggs of this grade are satisfactory for breakfast eggs. The yolk of an egg of this grade stands up in a well-rounded position and is free from defects or blemishes. The white must be clear and hold firmly around the yolk.

U. S. Standard or Retail Grade B is used both for table and for cooking. The yolk may show definite but not serious defects. Defective condition includes mottled appearance and slight germ development. Whites begin to thin as eggs go down in quality.

Storage eggs are graded as well as fresh ones, but storage eggs of the two top grades must be labeled as such when sold under certificates of quality. Storage eggs of the third grade -- U. S. Standard or Grade B -- are not required by the Agricultural Marketing Service to be so marked, but under the regulations of the Food, Drug, and Cosmetic Act storage eggs of any grade shipped as "Fresh eggs" in interstate commerce are considered misbranded.

BUTTER

Much work has also been done by the Service in carrying the U. S. grades of butter to the ultimate users. Cartons of certain widely distributed brands of high-quality butter contain certificates of quality which show the grade of the butter as determined by an authorized representative of the U. S. Department of Agriculture. (Fig. 5.) About 150 firms are authorized to use such certificates. Sales of butter with certificates of quality approximate 87,000,000 pounds each year.

A consumer who buys butter that carries a certificate of quality issued by authority of the Agricultural Marketing Service is likely to get a product of higher quality than she would have obtained had she bought butter that did not carry the certificate. Although a great deal of butter that is sold without quality certificates is just as good as the butter that bears one, a great deal is sold that could not meet the high-quality standards required in order to obtain the certificate. The certificate shows the score, which indicates the quality, and the date it was issued.

Certificates of quality on butter are limited to U. S. 92 score and U. S. 93 score.

U. S. 93 score must possess a fine flavor and is usually made from cream having a fine, sweet flavor. This is the best table butter available.

U. S. 92 score must possess a pleasing flavor, and can only be made from cream that has a clean, pleasing flavor. It is a high quality product suitable for discriminating consumers.

RICE

Milled and brown rice can now be bought by Federal grade. To an increasing extent, retail packages are seen on the grocery shelves carrying these grade names although the "U. S." before the grade name does not appear on all the labels. For milled rice, the five official grades used in the retail trade are Extra Fancy (U. S. No. 1), Fancy (U.S. No. 2), Extra Choice (U.S. No. 3), Choice (U.S. No. 4), and Medium (U.S. No. 5). For brown rice, the official grades used in the retail trade are Extra Fancy, Fancy, and Choice for rice produced in the Southern States, and Fancy, No. 1, and No. 2 for rice produced in California.

HONEY

To a limited extent, and chiefly in the Central West, consumers can find "U. S. No. 1" or "U. S. Fancy" stamped on containers of comb honey in retail stores. The stamping is usually done on the cellophane wrapping. In Ohio it is rather common to find comb honey offered in individual sections stamped "U. S. No. 1." Relatively little extracted honey is sold with U. S. grade terms stamped on the bottle or small cans. The wooden cases in which the extracted honey is packed are sometimes so stamped and a few individual beekeepers and bottlers place U. S. grade stamps on 5- and 10-pound pails and glass jars.

PROCESSED FRUITS AND VEGETABLES

Simple grade terminology (Grade A, Grade B, etc.) appears in the grades for canned fruits and vegetables developed by the Department. These grades are now used in connection with the inspection and grading of canned fruits and vegetables under the Agricultural Appropriation Acts and the United States Warehouse Act. (Fig. 6.)

The simplicity of the nomenclature and the fact that the grades have been widely and successfully used as the basis for the determination of loan values have led some to believe that the grades afford acceptable nomenclature for use on labels. Some canners and several distributors are now labeling their products with these terms in order that the consumer may be apprised of the quality of merchandise in the can. (Fig. 7.) A few canners are also showing on the label information relative to the product in the can.

The Service feels that informative labeling is particularly desirable as it enables the consumer to make selections actually on the basis of the quality preferred.

In general, Grade A represents the finest, most succulent vegetables.

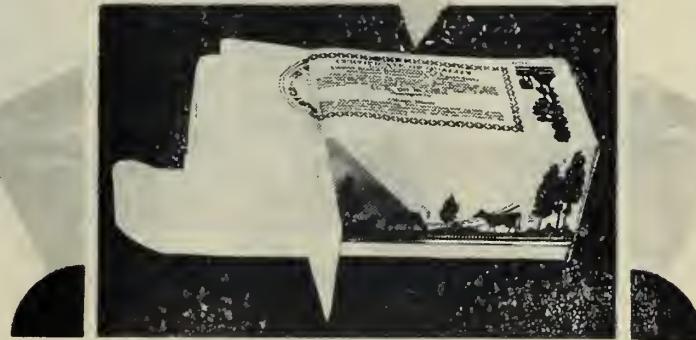
Grade B vegetables may not be quite so tender and succulent, but may be termed the general utility grade and will be found very satisfactory for use in the average household.

Grade C merchandise will be found to be wholesome food and has a definite use in the average household.



BUTTER GRADES IDENTIFIED BY CERTIFICATE OF QUALITY FOR CONSUMERS

OFFICIALLY GRADED BUTTER CONTAINS
A CERTIFICATE OF QUALITY SHOWING
THE GRADE OR SCORE.



CERTIFICATES LIMITED TO U.S. 92 AND U.S. 93 SCORE



QUALITY FACTORS

1. FLAVOR
2. BODY
3. COLOR
4. SALT

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FIGURE 5



OFFICIAL GRADING OF CANNED FRUITS AND VEGETABLES



TYPICAL LABORATORY GRADING SCENE

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE		OPTIONAL
CANNED FRUIT AND VEGETABLE GRADE CERTIFICATE		
No. 15503	Date Dec. 12, 1938 New	
To: West Shore Canning Company	Address: Jerseyville, New York	
Shipper or Seller:		
Receiver or Buyer:		
[Small print regarding shipping and handling]		
Samples Submitted by: Merchants Warehouse Company, Jerseyville, New York		
Product graded: Canned Lima Beans	Number and kind of containers: 12 No. 2 plain cans	
Code or other identification marks on case: VTF		
Printed title of Label (if any): Pride of Jerseyville		
Net Weight Range: 20-1/4 to 20-3/4 ounces.		
Yarnman Reading Range: 6 to 11 inches.		
Dressed Weight Range: 13-1/8 to 13-3/4 ounces.		
Steve Size: No. 2 (large).		
Grade: 10 cases U. S. GRADE A (Pancy)		
Score Range: 91 to 94 points		
Remarks: Panted in plates, bright green, mostly isolated, not in good condition. Case bears notation from Yarnman Company indicating # samples drawn from 1000 cases 24/82 cans. Five bushel boxes stored in Section 604, 7 and 8 warehouse, obtained from market, New York, December 14, 1938.		
 Price \$ 3.00 Harry F. Carter Grade Master Total \$ 3.00 Philadelphia, Pennsylvania <small>PLEASE REFER TO THIS CERTIFICATE FOR DRESSED WEIGHT</small>		

**GRADING
SERVICES ARE
AVAILABLE TO
ALL INTERESTED
PARTIES, SUCH AS
CANNERS, PUBLIC
WAREHOUSEMEN,
BANKERS,
BROKERS,
INSTITUTIONAL
BUYERS, ETC.**

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

For example, Grade A canned corn is very generally used as a side dish, Grade B may be used for making pudding and casserole dishes, and Grade C canned corn furnishes the basis for excellent soup.

In the cream-style canned corn the U. S. Grade A product will be prepared from young, tender sweet corn. It will be bright and have a heavy, creamlike consistency and will be practically free from such defects as silks, husks, and off-colored kernels.

The canned corn of the U. S. Grade C will be prepared from only reasonably tender sweet corn, the color may be dull, the consistency may be somewhat thin or may be somewhat thick indicating an insufficiency of moisture. The product is fairly free of silks and husks.

The Service feels that housewives will do well to insist on buying merchandise on which the grade is indicated in the simple terms suggested herein.

A-B-C grades for canned goods have been developed either in tentative or in recommended form for the following commodities: apples, apple sauce, apricots, asparagus, beets, carrots, red sour pitted cherries, sweet cherries, corn (cream style), corn (whole-grain style), dry beans, grapefruit, grapefruit juice, lima beans, mushrooms, okra, peaches, pears, peas, pimientos, plums and prunes, pumpkin (squash), sauerkraut, snap beans, spinach, sweetpotatoes, succotash, tomatoes, tomato catchup, tomato juice, and tomato pulp. (Fig. 8.)

Grades for frozen and dried fruits and vegetables are now being formulated by the Agricultural Marketing Service. Tentative grades for frozen peas and lima beans have already been announced. These also will use the designations Grade A, Grade B, etc., for the benefit of consumers. It is expected that the grades for additional commodities will bear similar designations.

FRESH FRUITS AND VEGETABLES

Federal standards for practically all fresh fruits and vegetables have been worked out (82 standards for 57 fresh fruits and vegetables). Although these standards have been used mainly in wholesale transactions, their use has brought about improvement in the quality of products shipped to market. As a result the consumer is getting increasingly better produce for every dollar spent for it.

Certain groups of consumers, however, have not been entirely satisfied with the quality of the produce they have been obtaining and frequently have asked "Why can't we buy fresh fruits and vegetables at retail by U. S. grade designation?"

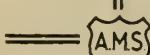
Potatoes, Onions, Apples, Citrus Fruits

During the last few years the packing of some of the less perishable products such as potatoes, onions, apples, and citrus fruits in consumer-size packages branded with the U. S. grade designation has increased materially. It is believed in the Department that produce packed to meet requirements of U. S. Fancy or U. S. No. 1 grade is generally satisfactory to consumers. The big problem is to have the products meet such requirements at the time they are offered for sale to the consumers in the retail stores.

Because of the higher labor costs in the cities and the lack of packing facilities, it is more economical to put up consumer packages of produce at shipping points. Fruits and vegetables, however, are more or less perishable and packages of some products meeting the requirements of U. S. No. 1 grade at shipping points will not contain U. S. No. 1 products when they arrive at the retail stores. Some specimens may decay or break down in transit whereas others will be injured mechanically during transportation and handling. This is true even of the less perishable products such as onions and potatoes. Unless the packaged products are reconditioned in the stores, some of them will fail to meet the grade requirements when offered to the consumer. The consumer who purchases such a package is dissatisfied with her purchase and there is a resulting tendency to criticize the requirements of the U. S. standards.

In spite of apparent disadvantages of applying U. S. standards to retail quantities of fresh fruits and vegetables, the Agricultural Marketing Service is forging ahead with a program to make the standards more adaptable to consumer use. As a step in this direction a study is being made of U. S. potato standards in Chicago. Members of the market inspection force are interviewing retailers and making analyses of various lots of potatoes offered for sale. Samples obtained from retail stores in Chicago have been analyzed to determine the size and grade of potatoes or the percentage of U. S. No. 1 quality in consumer packages put up at shipping points or in Chicago, as well as in 100-pound sacks, 50-pound crates of new potatoes, and in bulk lots in bins at the stores. When the survey is completed, the Department will have a fairly representative picture of the quality and size of western-, northern-, and southern-grown potatoes that were offered to consumers in Chicago during the past season, as well as statements from perhaps a fifth of the retail store managers in Chicago relative to consumer preferences and to qualities in potatoes that are most objectionable to consumers. The analyses of several hundred consumer packages of potatoes labeled as to grade should give a fairly accurate picture of the percentage of potatoes packed at shipping points to meet a specified grade that carries through to the consumer.

When finally tabulated and assembled the data will give, it is hoped, an indication of what changes, if any, are necessary in the U. S. standards for potatoes to make them more adaptable to consumer use. If this undertaking proves successful with potatoes, similar studies may be made of the marketing of other commodities with a view to making the standards more serviceable from the consumer's point of view.



OFFICIAL U. S. GRADES FOR CANNED FRUITS AND VEGETABLES

EXAMPLE-TOMATOES



U. S. GRADE A (FANCY)



U. S. GRADE B (EX. STANDARD)



U. S. GRADE C (STANDARD)

QUALITY FACTORS

1. PERCENTAGE OF WHOLE TOMATOES
2. SOLIDITY (DRAINED WEIGHT) 3. COLOR
4. ABSENCE OF DEFECTS

QUALITY FACTORS VARY SLIGHTLY FOR
DIFFERENT FRUITS AND VEGETABLES

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(AMS)

U. S. GRADES OF CANNED FRUITS AND VEGETABLES LABELED FOR CONSUMERS



- THE GRADE SYMBOL AND SUPPLEMENTARY DESCRIPTIVE TERMS ON THE LABEL IDENTIFY THE QUALITY IN THE CAN
- GRADE SYMBOLS ASSIST CONSUMERS IN SELECTING DESIRED QUALITY CANNED FRUITS AND VEGETABLES

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Other Fruits and Vegetables

Now we come to the second group of fresh fruits and vegetables. The grades and grade designations for them are not as yet carrying through to the retail markets. The producer does not usually mark the grade on the container; or if the container is marked with the U. S. grade of the product, it or that part of it that bears the mark may be discarded by the retailer.

On most of the markets, many buyers who purchase wholesale containers of fruits and vegetables are now asking for produce which has been packed to meet the requirements of United States grades. Frequently they are finding the grade marked on the container when they look or ask for it. The more they request it the more they will find the grade name. An increased and consistent demand may mean that dealers on the wholesale markets will feature the U. S. grade mark.

Most of the fruits and vegetables are sold from bulk displays in retail stores where the buyer has the opportunity to select the quality that best meets her individual requirements. It is impossible to know exactly what percentage of retail purchases are made by personal selection but it is probably between 75 and 90 percent. If bulk displays of fresh fruits and vegetables labeled as to grade, were to be offered to the consumers it would mean that an inspector or someone well trained to interpret the standards would have to inspect the produce each morning. Furthermore, someone would have to give close attention to the maintenance of the displays throughout the day. At present the facilities for training a corps of inspectors to handle the job are not available. Also the cost would probably be prohibitive and the consumer would not be willing to pay the extra cost for the classified produce. It is also problematical whether the average consumer in selecting her needs would pay much attention to the grade marked on a lot. She would probably select individual specimens that appear to be the best in the display regardless of any grade designation.

Under present methods of handling, it would be impossible to pack certain of the highly perishable commodities such as spinach, beets, strawberries, peaches, and tomatoes of a certain grade in consumer-size packages at shipping points and expect all of them to arrive in the stores in condition to meet the requirements of the same grade. Peaches and tomatoes that have deteriorated can be sorted out in the stores. But a package of peaches reconditioned for grade in the morning might not be up to grade in the afternoon owing to the development of brown rot. In an attempt to recondition small fruits and berries one would probably do more harm than good in sorting them to remove damaged specimens.

Grades are based upon variety, color, size, maturity, and shape, and freedom from defects such as may be caused by dirt, freezing, disease, insects, or mechanical means. Except for the injurious effects that disease, freezing, overmaturity, or rough handling might have on a product, there is no difference in the nutritional value of a grade 1 fruit or vegetable and a grade 2 product. The difference is mainly in appearance, waste, and preference.

Consumer preferences enter importantly into the description of grades. Fruits and vegetables with a pleasing shape and color appeal to shoppers' appetites and loosen their purse strings.

For tomatoes, by way of illustration, there are two grades--U. S. No. 1 and U. S. No. 2. The requirements for U. S. No. 1 tomatoes are that they be of similar varietal characteristics, mature but not overripe or soft, fairly well formed, fairly smooth; free from decay, freezing injury, and from damage caused by dirt, bruises, cuts, sunscald, sunburn, puffiness, catfaces, growth cracks, scars, insects, hail or mechanical injury, and free from visible disease when shipped.

The requirements for U. S. No. 2 grade as compared with U. S. No. 1 are more liberal as to shape and smoothness and regarding those factors listed under damage in U. S. No. 1 grade. In the U. S. No. 2 grade, the tomatoes are required to be free from serious damage instead of free from damage.

DRY BEANS

Standards have been worked out for all commercial classes of dry edible beans, and these standards are used to a considerable extent in the trade. Some retailers are getting beans under the grade names of U. S. No. 1 and U. S. No. 2 and indications are that many more retailers will soon handle them by grade. Therefore consumers might well begin to ask for beans in that way.

CONTAINERS

In one important line, standards have been established by Federal laws. In 1913, when standardization work on farm products was making a good start, the Department had constant queries from housekeepers and from interested groups in the trade as to whether anything could be done to eliminate the nuisance of "snide" berry and fruit boxes. Frequently when they emptied out a berry box, the housekeepers complained, they found the bottom set high in the box, and similar practices deprived them of their rightful quantity of other small fruits.

Several years ago, Congress passed a standard container law that prescribed the sizes for baskets for small fruits and vegetables in inter-state trade. About a dozen sizes of grape baskets were reduced to 3 and 33 sizes of berry boxes and till baskets were replaced by 6 common sizes. Later, another law was passed that standardized hampers, round stave baskets, and market or splint baskets. Nine sizes of hampers, for instance, now replace about 50 styles and sizes. Formerly when a housekeeper bought a hamper of vegetables she did not know whether she was getting a full bushel or seven-eighths of a bushel, for the same price was usually paid regardless of the size of the so-called bushel hamper, and the difference in size was not evident. Market baskets, used in selling many commodities on some markets, varied widely in capacity and style but it

was difficult to detect discrepancies by eye. The same styles are now allowed, but they must conform to 6 specified sizes in capacity.

These standard sizes, once set, have met with almost universal favor. Enforcing the standard container laws, however, necessitates frequent surveys of manufacturers' operations and tests of their containers.

Crates, boxes, cartons, and sacks for fruits and vegetables are still unregulated as to sizes in spite of the fact that they are becoming increasingly important and more diversified as to shapes and sizes.

GRADE SPECIFICATIONS AVAILABLE

Specifications or descriptions of the grades of almost any farm product will be sent by the Agricultural Marketing Service to any consumer who writes for them and who designates the specific commodities in which she is interested. Some specifications that may be unsuitable for her use may still be suggestive of things to look out for when buying.

Huge sums are spent by many large growers' organizations and many large firms in retail store work. Through displays, folders, and labels, they are bringing the consumers much information that works to the advantage of all. Government grades are increasingly recognized as one means of carrying on such work. Some leaders in the Federal standardization work believe that eventually many of the U. S. grades will be carried to consumers chiefly through these large distributors and advertisers. Demand from the consuming end will do much to encourage such a development. Many cooperative growers' organizations and firms do not now see how they can profitably relate their brands closely with the official grades but there are signs that such a development may be coming.

SIMPLIFIED GRADE NAMES DESIRABLE

Perhaps the greatest need at present is for uniform and simplified grade names or designations that will readily give the consumer the desired information regarding quality. Grade names adopted as a result of long-established practices in industry may not convey to the consumer an understanding of the quality of the product. Alphabetical or numerical grade terms seem to be most acceptable to consumers. This has been shown by the great interest of consumers in A, B, and C grades for processed fruits and vegetables. Linking alphabetical or numerical terms with more of the present grade names in order to make them more understandable and acceptable is receiving the consideration of standardization specialists.

Development of grades on which individual consumers can buy is an important element in the future standardization program. Many consumers need and want these grades. Their demands must be met and other consumers must be reached, for until the individual consumers think in terms of qualities, and buy on the basis of grades that signify quality, there cannot be the most sensitive adjustment of price to quality.

PUBLICATIONS

For the following publications of interest to consumers, apply to the Agricultural Marketing Service, U. S. Department of Agriculture, Washington, D. C.:

A Fruit and Vegetable Buying Guide for Consumers	Misc. Pub. 167
Buying Beef by Grade	Misc. Pub. 392
National Standards for Farm Products	Circular 8
U. S. Graded and Stamped Meat	Leaflet 122
Check List of Standards for Farm Products	(Mimeographed)
Government Grading of Canned Fruits and Vegetables -- Questions and Answers	(Multigraphed)
How Federal Grades for Fresh Fruits and Vegetables are Being Adapted to Consumers' Needs	(Mimeographed)
Shall we Buy Canned Food by Guess or by Grade?	(Mimeographed)
The Trend Toward Consumer Standards for Canned Fruits and Vegetables	(Mimeographed)
The <u>A B C</u> of Canned Fruit and Vegetable Grade Labeling	(Mimeographed)

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For the publications listed below, consumers and others interested should apply to the Consumers' Counsel Division, U. S. Department of Agriculture, Washington, D. C.:

Articles from the CONSUMERS' GUIDE:

Standardizing Standards (Containers for fruits and vegetables.)	CONSUMERS' GUIDE Separate No. 34.
Simple as A B C (Quality grading of canned fruits and vegetables.)	CONSUMERS' GUIDE Separate No. 36.
Does its Price Tell its Quality?	Volume VI, No. 14.
Buying Meat by Grade	Volume VI, No. 17.
Available Federal Grading Services	(Multigraphed)
Consumer Standards and Marketing	(Mimeographed)

Consumers Look at Eggs. Study Outline. Price - 10 cents, from the Superintendent of Documents, Washington, D. C.

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